

# PATENT ABSTRACTS OF JAPAN

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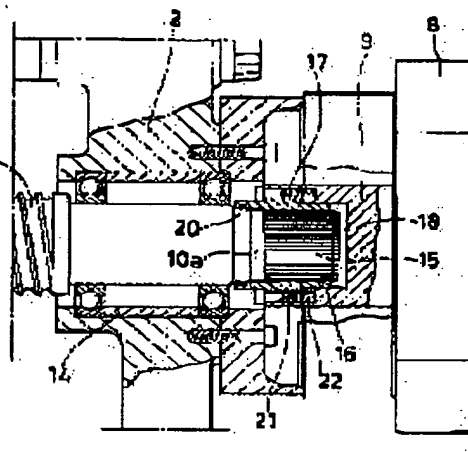
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## (54) COUPLING MECHANISM BETWEEN INJECTION DRIVE SCREW SHAFT AND ELECTRIC MOTOR AT INJECTION DEVICE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To make it possible to connect both shafts with splines by forming the spline of the motor shaft-side to be engaged with the spline of the screw shaft side for injection drive, on the inner peripheral face of a bearing cylinder other than the motor shaft.

**SOLUTION:** The screw shaft 10 for injection drive at the motor-driven injection device and the motor shaft 9 of an electric motor 8 are coupled together by the engagement of the splines. That is, the spline 15 on the motor shaft 9 to be engaged with the spline 13 on the outer peripheral face of a shaft end part is formed on the inner peripheral face of the bearing cylinder 16. The screw shaft 10 is fitted into a recessed part 18 formed in the end of the motor shaft 9, and the flange 17 of an outer periphery is fastened to the end face of the motor shaft 9 with a bolt. Thus, the spline the screw shaft 10 is fitted in a freely attachable/detachable manner, to the motor shaft 9. In addition, an annular groove 19 is formed in the open inner peripheral face, on the screw shaft 10 side, of the bearing cylinder 16, and a ring member 20 for airtightly sealing the gap between the screw shaft 10 and the bearing cylinder 16, is inserted into the annular groove 19.



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